

There is a 3 x 3 grid with one shape drawn in each grid square.
Use the cards to decide which shape is in which square.
Is your answer unique?

The shape in the top left hand corner has 3 lines of symmetry.

There is a square directly above the hexagon.

The shape to the left of the small square has 2 lines of symmetry and 4 right angles.

Two shapes each have 4 lines of symmetry.

Each row and column contains 2 quadrilaterals.

Each of the shapes in the top right and bottom left hand corners has one line of symmetry.

5 of the quadrilaterals include at least one pair of parallel sides.

One shape has no straight sides and one centre of rotation.

4 of the shapes are regular with straight sides.

5 shapes have all sides equal in length.

One of the shapes has one line of symmetry and its diagonals cut at 90° .

4 quadrilaterals have diagonals which cut at 90° .

Shapes in the middle column contain a total of 14 lines of symmetry.

Shapes in the middle row and in the right hand column contain an infinity of lines of symmetry.

No shape has more than 6 vertices.

EXTENSION

- (i) Create an additional card to make your solution unique.
- (ii) Replace one of the cards with one of your own. Does your new problem have a solution? Is it unique?
- (iii) Design your own 3 x 3 shape grid and a set of cards.